

Remarks

The Applicant would like to thank the Examiner for the gracious telephonic interview conducted with the Applicant on January 10, 2006. Claims 1-23 were pending in the present application prior to amendment herein, and claims 1-23 were rejected. Claims 1-3, 6, 8-16, 19, 22, and 23 have been canceled, and claims 4, 5, 17, and 18 have been amended. In addition, new claims 24-33 have been added to the present application. Claims 4, 5, 7, 17, 18, 20, 21, and 24-33 are therefore currently pending in this application.

Independent claims 4 and 17 have been amended herein to more clearly recite the features of the present invention which distinguish it from the prior art, as discussed during the telephonic interview on January 10, 2006. The claimed methods relate to the use of CPVC fittings to drain chemical corrosive waste, in particular the use of fittings having a bore with a pitch that changes by at least about 1/4" per foot. Fittings pitched in this way employ gravity to move waste through them.

No new matter has been added to this application by the foregoing amendments, with support being found in the specification, claims and figures as filed. Support for the amendment of claims 4 and 17 can be found, for example, in the specification on page 2, lines 10-16 and on page 6, lines 2-4.

Also submitted herewith is a Declaration of Douglas Swingley under 37 C.F.R. § 1.132, including 9 exhibits thereto. The Applicant respectfully requests entry of the foregoing amendments and consideration of the present application in view of the Declaration of Douglas Swingley and Applicant's comments below.

Nonobviousness of the Present Invention

CPVC piping was not used to drain chemical corrosive waste prior to the present invention, as explained below with reference to the outstanding rejections under 35 U.S.C. § 102 in this case. This is due to the fact that CPVC pipes and fittings had been tested by manufacturers of such piping and by others in the thermoplastic piping industry for their resistance to chemical attack, and had been found to be not resistant to a range of

commonly used corrosive chemicals. This prior understanding of the chemical resistance of CPVC piping is reflected in Exhibit 3 of the Declaration of Douglas Swingley, which is a report prepared by the Plastics Pipe Institute Inc., a trade association of the piping industry. The report details the susceptibility of CPVC piping to attack by a number of chemicals. Many of the same chemicals continue to be listed by members of the piping industry as "not recommended" for use with CPVC, as demonstrated by Exhibits 4 and 5 of the Declaration, which are current brochures from providers of CPVC piping.

When Spears introduced its LABWASTE™ CPVC Corrosive Waste Drainage System, the piping industry, including manufacturers of CPVC pipe, expressed disbelief in the efficacy of CPVC for draining chemical corrosive waste. Exhibits 6 and 7 of the Declaration of Douglas Swingley are documents circulated by competitors of Spears which reflect this disbelief and, in addition, confirm that CPVC piping was not listed in plumbing codes for use in corrosive waste drainage applications prior to Spears' introduction of its LABWASTE™ System.

In spite of such doubt on the part of the piping industry, the Applicant has shown that CPVC fittings and pipes can be successfully employed to drain chemical corrosive waste. Not only can the CPVC fittings used in the present methods handle the corrosive agents which Exhibits 6 and 7 list as being incompatible for use with CPVC in drainage applications, but such fittings and pipes have also now been certified for use in corrosive waste drainage applications by NSF International under NSF standard 14 and Interim Guide Criteria 210 of the Uniform Plumbing Code (UPC), as well as by the International Codes Council Evaluation Service (ICC-ES) under the International Plumbing Code (IPC). Spears' success in the marketplace with its LABWASTE™ System (as attested in the previously submitted Declaration of Gregory Peak under Rule 1.132) further corroborates the Applicant's discovery that CPVC fittings and pipe can be successfully employed to drain chemical corrosive waste.

The Applicant believes that its success in draining chemical corrosive waste with CPVC fittings is due to the limited contact between its fittings and such waste in drainage applications. Through the use of fittings with pitched bores as claimed herein, chemical corrosive waste is moved through the fittings by the action of gravity on the waste materials, and the amount of time fitting surfaces are exposed to the waste is limited. As

a result, corrosive chemicals previously thought to be unsuitable for use with CPVC piping can in fact be successfully drained with CPVC fittings and pipes, and the wide range of corrosive chemicals that can be drained with CPVC piping make such fittings and pipes suitable for use in chemical corrosive waste drainage applications.

Rejections under 35 U.S.C. § 102(b)

Rejection of Claims 1-14 and 16 based on Public Use or Sale

Claims 1-14 and 16 were rejected under 35 U.S.C. §102(b) on the ground that the previously submitted Declaration of Gregory Peak provides evidence of a prior sale of the present invention. Paragraph 8 of this declaration stated that “Spears Manufacturing Company has been selling CPVC fittings and pipe for DWV Service for little more than three years.” The declaration is dated January 27, 2005, and this date is cited as support for the conclusion that there were sales of the presently claimed invention as of January 27, 2002.

The Applicant is submitting further evidence herewith to show that the foregoing statement was inaccurate, and that in fact no public use or sale of the present invention occurred more than one year prior to the filing (on March 26, 2003) of the application from which the present case claims priority. Attached as Exhibit 1 to the Declaration of Douglas Swingley under 37 C.F.R. § 1.132 is a purchase order for CPVC pipe dated August 30, 2002. This order was the first placed for CPVC pipe by Spears Manufacturing Company with its supplier in connection with the launch of Spears’ LABWASTE™ CPVC Corrosive Waste Drainage System, as attested in paragraphs 2 and 3 of the Declaration of Douglas Swingley, and no CPVC drainage fittings were sold by Spears prior to this date.

Furthermore, evidence is submitted herewith showing that there was no offer for sale of the fittings used in the presently claimed methods more than one year prior to the priority date of the present case. Exhibit 2 of the Declaration of Douglas Swingley is a copy of the purchase order used by Spears Manufacturing Company to order artwork and a brochure to be used in advertising the LABWASTE™ System. This purchase order is

dated May 6, 2002, and marketing of the LABWASTE™ System did not begin until after the receipt of the materials ordered by Spears with this purchase order. Paragraph 4 of the Declaration of Douglas Swingley, moreover, attests that no offer for sale of the LABWASTE™ System occurred prior to the date that these materials were ordered.

In view of the further evidence provided herewith, the Applicant respectfully submits that there was in fact no sale or offer for sale of the present invention more than one year prior to the priority date of the present application. The Applicant therefore requests that the rejection of claims 1-14 and 16 under 35 U.S.C. §102(b) based on a prior sale of the present invention be withdrawn.

Rejection of Claims 1-23 over Chemdrain (892-ref U)

Claims 1-23 were rejected under 35 U.S.C. §102(b) as being anticipated by the Chemdrain reference. The Applicant respectfully submits that this reference is dated after the filing date of the present application, and therefore that it is not prior art.

However, addressing the statement in this reference that CPVC “has been used in a variety of chemical-processing piping system applications for more than 30 years,” the Applicant respectfully points out that the mention of the use of CPVC piping in “a variety of ... applications” does not anticipate the Applicant’s claims to the use of CPVC piping in chemical corrosive waste drainage applications. CPVC has previously been used in pressure piping applications, in situations in which the identity of the materials transported through such pipes was known. CPVC was not used in chemical corrosive waste drainage applications because piping for corrosive waste drainage must withstand chemical attack from a variety of chemicals, and the piping industry believed prior to the present invention that CPVC piping would not withstand chemical attack from many commonly used corrosive chemicals (e.g., including those listed in Exhibits 6, 7, and 9 of the Declaration of Douglas Swingley).

In view of the foregoing, the Applicant respectfully submits that claims 1-23 are not anticipated by the Chemdrain reference, and withdrawal of this rejection is respectfully requested.

Rejection of Claims 1-4, 13, and 14 based on Tuohey

Claims 1-4, 13, and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,437,138 to Tuohey. Claims 1-3, 13, and 14 have been canceled herein, making the rejection of these claims moot. Claim 4 remains pending.

Claim 4 recites a method for draining chemical corrosive waste using a fitting comprising CPVC which has a bore with a pitch that changes by at least about 1/4" per foot. The Tuohey patent discloses only a conventional rain gutter, and does not teach or suggest a method of draining corrosive waste with fittings that are pitched as claimed in claim 4.

In light of the foregoing, the Applicant respectfully requests that the rejections of Claims 1-4, 13, and 14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,437,138 to Tuohey be withdrawn.

Rejection of Claims 1-4, 6, and 13 based on Vanesky (577)

Claims 1-4, 6, 13, and 16-23 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,437,138 to Vanesky. Claims 1-3, 6, 13, 16, 19, 22, and 23 have been canceled herein, making the rejection of these claims moot. Independent claims 4 and 17 remain pending.

Vanesky discloses a coupling for connecting sections of pipe which includes a first, second, and third cylindrical land (i.e., a raised region) on the interior portion of the coupling. These cylindrical lands are "collinear and congruent" according to Vanesky (see column 3, lines 2-3 and column 4, lines 17-20), so the bore of the Vanesky fitting is not pitched.

Claims 4 and 17 recite methods which relate to draining chemical corrosive waste using a fitting comprising CPVC which has a pitched bore. Vanesky does not teach or suggest the draining of corrosive waste, nor does it teach a fitting having a pitched bore for use in such an application, and therefore does not render claims 4 or 17 unpatentable.

Pending claims 18, 20, and 21 depend from claim 17, and therefore are also patentable over Vanesky for the same reasons. In view of the foregoing, the Applicant

respectfully requests that the rejections of Claims 1-4, 6, 13, and 16-23 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,685,577 to Vanesky be withdrawn.

Rejection of Claims 1-7 and 13 based on Shaefer

Claims 1-7 and 13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,457,542 to Shaefer. Claims 1-3, 6, and 13 have been canceled, making the rejection of these claims moot. Independent claim 4 remains pending.

Shaefer discloses a pipe fitting comprising an internal liner made, e.g., from CPVC. The fitting of the Shaefer patent, however, does not comprise a pitched bore, nor does Shaefer teach or suggest the use of a CPVC-lined fitting in corrosive waste drainage applications. The Shaefer fitting includes, moreover, an outer reinforcement layer (see, e.g., column 3, lines 26-30 and column 4, lines 13-15), which suggests that the fitting is intended for use in applications in which pressurized fluid is being conducted, and not in drainage applications, in which fluids are not pressurized.

Claims 5 and 7 depend from claim 4, and therefore are also patentable for the reasons given with regard to claim 4. In view of the foregoing, the Applicant respectfully requests that the rejection of Claims 1-7 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,457,542 to Shaefer be withdrawn.

Rejections under 35 U.S.C. § 102(e)

Rejection of Claim 14 over Auvil or Thomas

Claim 14 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,775,378 to Auvil, and as being anticipated by U.S. Patent Publication No. 2003/0056826 to Thomas. Claim 14 has been canceled herein, making these grounds of rejection moot. The Applicant therefore respectfully requests that the rejection of claim 14 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,775,378 to Auvil and by U.S. Patent Publication No. 2003/0056826 to Thomas be withdrawn.

Rejections under 35 U.S.C. § 103

The nonobviousness of the present invention in view of evidence submitted herewith has been discussed at length above. In addition to this evidence, the Applicant has previously submitted evidence of copying of the Applicant's invention by a competitor of Spears Manufacturing Company, namely the Charlotte Pipe and Foundry Company, as evidenced by Exhibits A and B of the Declaration of Donald K. Piper submitted with the Applicant's response dated November 3, 2005. Not only has Charlotte Pipe and Foundry begun selling CPVC fittings and pipes for use in corrosive waste drainage applications, it also recognized the inventiveness of using CPVC piping in such applications in an advertisement: "And it only seems fitting that the latest and greatest invention to come out of a laboratory is designed to go into one" (*PM Engineer*, p. 9, June 2005, submitted as Exhibit A of the Declaration of Donald K. Piper in Applicant's previous response).

Rejection of Claims 1-13 over Condon in view of Shaefer

Claims 1-13 and 16-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,423,345 to Condon in view of U.S. Patent No. 4,457,542 to Shaefer. Claims 1-3, 6, 8-13, 16, 19, 22, and 23 have been canceled herein, making the rejection of these claims moot. Independent claims 4 and 17 remain pending.

Condon discloses DWV fittings formed from PVC or ABS for use in conventional plumbing. As discussed above, the fitting disclosed in the Shaefer patent is not pitched, and Shaefer does not teach or suggest the use of CPVC fittings in corrosive waste drainage applications, as claimed in claims 4 and 17. Therefore, the combination of Condon and Shaefer fails to teach or suggest the presently claimed methods for draining chemical corrosive waste with CPVC fittings having a pitched bore.

Rejection of Claims 8-12 over Shaefer

Claims 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,457,542 to Shaefer. Claims 8-12 have been canceled herein, making this ground of rejection moot. In view of this, the Applicant respectfully requests that this rejection be withdrawn.

Conclusion

The Applicant believes he has addressed the issues raised in the Office Action dated November 16, 2005 and that all pending claims are now in condition for allowance. The issuance of a Notice of Allowance is therefore respectfully requested. If there remain any issues in this case which can be addressed by telephone, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

Please charge any fees due in connection with the present Amendment, or charge any overpayment, to Deposit Account No. 19-2090.

Respectfully submitted,

SHELDON & MAK PC

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